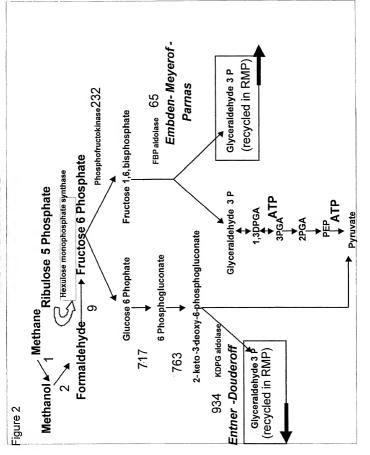
FIGURE 1 QH ♥ dxs Pyruvate Glyceraldehyde-3P OP 1-Deoxyxylulose-5P $\int_{-}^{0} dx r$ 2-C- Methylerythritol-4-phosphate ygbP 4-diphosphocytidyl-methylerythriyol ychB, ygbB, lytB,gcpE, ipk OH OH Isopentenyl-PP Dimethylallyl-PP OPP ispA OPP Geranyl-PP ↓ ispA Farnesyl pyrophosphate crtE GGPP GGPP crtB crtl Lycopene crtY **B-Carotene** crtZ Zeaxanthin Astaxanthin crtX

Zeaxanthin-β-p-diglucoside



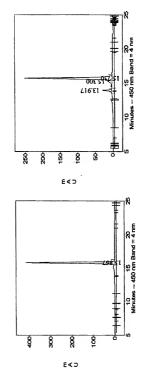
EcoR I(1)

쁑

뀱

pcrt1 11555 bp

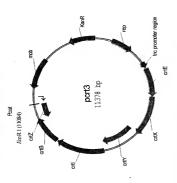
Figure 3



EcoR 1 (5301)

σtζ

Figure 4





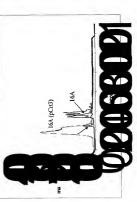
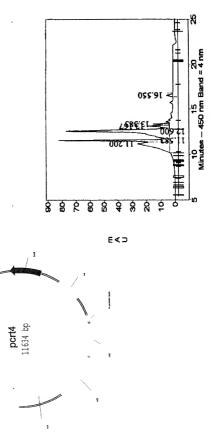


Figure 5

EcoR I(I)

EcoR I (257)



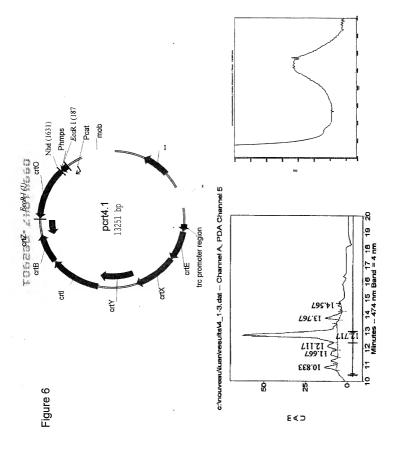


Figure 7

